

On behalf of the Kalaupapa NHPS, I participated in OSHA's Hazwoper refresher on O'ahu, Hawai'i from May 6 - May 11, 2013. I was able to visit several establishments around the island to obtain more knowledge about how to be better effective at separating the types and grades of recyclables that I encounter in my position as a maintenance worker in the Recycling Division.

A. Tuesday May 7, 2013

- I. Hawaiian Earth Products (HEP), Allen Evans, Manager – Famous for a material called 'Menehune Magic', HEP specializes in green waste for composting. Menehune Magic is a combination of the waste compost byproduct and types of soils and chemicals and is used to promote growth of plants as well as things like erosion control. They are relocating to an 80-acre facility with a covered warehouse to be able to accept all green waste, as they are currently not able to accept food waste. The covered warehouse will be central to controlling the temperature of the product, in order to promote quicker breakdown of the waste. Some interesting facts learned were:

- HEP recycles over 90,000 tons of yard waste.
- HEP is supplying Molokai High School's Athletic Department with compost material for their new baseball field, currently being built.
- There are different sizes of compost materials. Larger sizes are used for erosion control, finer for fertilizers.
- They have many different types of compost materials depending on the needs of their clients.
- They are contracted to receive all the green waste from the entire City and County of Honolulu.

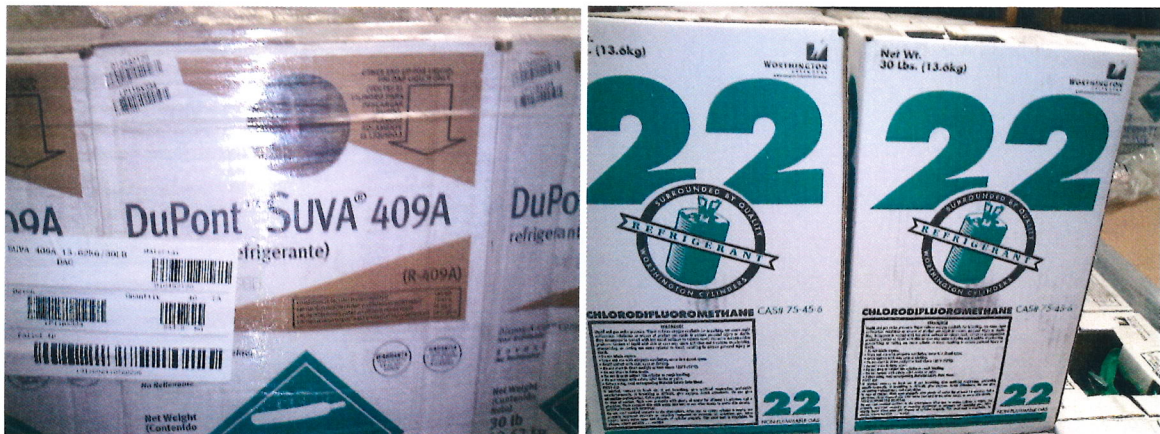


B. Wednesday May 8, 2013

- I. Refrigerant Recycling, Mike Diorec, Contact– The main function of this company is to accept appliances that utilize refrigerants such as freezers, air conditioning units and refrigerators, and safely remove freon and other harmful refrigerants. If they cannot recycle it themselves, they will still accept materials from the public and distribute them to other vendors that recycle those materials. Some facts learned while visiting Refrigerant Recycling are:

- In addition to refrigerants they recycle oils, copper and other metals on the units turned in.

- They are able to recycle R12 and 134a refrigerants
- What they themselves cannot recycle gets sold to various other companies such as Schnitzer Steel for recycling and redistribution.
- They began their business in a garage years ago and are now a \$1 Million/plus company.
- They will be relocating soon to enable them to accept more recyclables such as televisions and other e-waste materials.
- They are a primary vendor for the Military in accepting recyclable refrigerant materials.
- After collecting 134a and R12 materials, they process and re-package the materials, then sell it here in the state of Hawai'i so it doesn't need to be transported to the mainland.
- It currently costs between \$400 and \$450 per 1000 pound cylinder to send out for disposal.
- It takes a little over 2 months to fill each 1000 pound cylinder.
- 134a refrigerant is currently valued at \$227/lb.



- II. Schnitzer Steel (James M. Wright, Manager) – The primary function of Schnitzer Steel is to accept and recycle metals. They currently accept materials such as vehicles, washing machines and refrigerators and prepare them by placing them on an industrial size conveyor belt which leads the materials to a machine that chops up steel. The machine separates foam and plastics found in vehicles and workers send them to other vendors/companies that recycle those materials. Most of the metals get sent to China for industrial use. An interesting fact learned while visiting Schnitzer Steel was:
- Their metals recycling division collects, processes, recycles, trades and brokers ferrous and nonferrous scrap metal and provides processed scrap metal to mills around the world.





C. Thursday May 9, 2013

- I. Reynolds Recycling (Terry G. Telfer, President) – Reynolds is a locally owned company in Hawai'i. 30 million pounds of aluminum is recycled in Hawai'i alone every year. It takes 6 weeks from start to finish until a recycled can will be placed back on the shelf for re-



consumerism. 40% of our recycled cans go to China and some go to Korea. Some personally interesting points I learned were:

- Spam and cat food cans are valuable, but not as valuable as aluminum cans because the grade isn't as high (and should therefore be separated from other aluminum).
- Can tabs being collected for the Ronald McDonald house due to claims of them being valuable are a public misconception caused by McDonald's.
- Materials are sent to Alcoa, TN then on to Korea to make Kia cars and other consumer products.
- Reynolds' aluminum balers bale 38,000 pounds per day.
- Spam and foil can be baled together with 300 pounds of spam cans being the average per bale.
- Recycling cans and plastic bottles has saved years of landfill space since the bottle bill was introduced in Hawai'i (HI5) in 1981.
- They also accept, paper, cardboard and metals.
- RJ Reynolds' company was founded in 1891. Foil paper was invented in 1945. RJ Reynolds is the parent company of Reynolds Recycling.
- Reynolds' provides significant financial support to various local schools and charities.

We were fortunate to be afforded the opportunity to take a photo with Mr. Telfer, President of Reynolds Recycling.



- II. Pacific Commercial Services (PCS), Winnie Yuen, Environment Specialist/E-Waste Manager – One of the functions of PCS is to identify hazardous materials (hazmat) and how to separate and contain them. I was able to observe their receiving office where materials are accepted and separated, where we listened to how they use kitty litter to absorb spills and lab pak boxes to contain materials we collect. Lab pak boxes prevent hazardous materials from leaking into the environment. They explained that they have one container with all equipment ready to be immobilized so they can get to a site and be able to handle any kind of call, whether on land or water. Some valuable points learned and reviewed were:

- Hazmat gets sent to the mainland and is destroyed in an incinerator.

- PCS is moving locations soon to be able to start accepting e-waste such as printers, fax machines and televisions, and to utilize modern technological capabilities.
- Certain wastes can be packed together in lab pak boxes, while others are capable of causing explosive or corrosive reactions, and should not be placed in the same lab pak.
- Alkaline batteries do not need to be taped on either end; Lithium and NiCad batteries need to be taped.

D. Friday May 10, 2013

- I. OSHA Hazwoper Refresher – Marcus, Instructor.
  - OSHA was found in 1970 to ensure safe and healthy working conditions and to preserve human resources.
  - Class A fires involve ordinary combustible materials such as paper and wood.
  - Flammables ignite at low temperatures; combustibles need to be raised to higher temperatures to ignite. (This is the very reason PCS sends their combustibles to be disposed of at a location on the mainland).
  - In addition to OSHA, another government agency that provides regulatory information on public highways is the Department of Transportation.

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